

May 20 12:58

Work Order ID 69683

Monday, May 16, 2011 10:47:28 AM



Item ID: D4154-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Plate

Start Date: 5/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 5/17/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4154

B

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: B

Prog Rev: B

2-Deburr if necessary

B-11-5-16

6

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

B-11-5-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 69683

Monday, May 16, 2011 10:47:28 AM



Page 2

Item ID: D4154-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Plate

Start Date: 5/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 5/17/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00		8 11/05/16		(x6)			
130 Brake NC Brake NC	Form as per dwg Memo	0.00 0.00		SB 11/05/17		(6)			
140 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		8 11/05/17		(x6)			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 69683

Monday, May 16, 2011 10:47:28 AM



Page 3

Item ID: D4154-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Plate

Start Date: 5/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 5/17/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150



Packaging

Identify as per dwg & Stock Location:

W/A
670

0.00

Memo

0.00

EL 11-5-12 X6

Packaging

160



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

11/5/18

MF
11-05-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, May 16, 2011 10:47:25 AM

Page 1

Work Order ID: 69683



Parent Item: D4154-1



Parent Item Name: Plate

Start Date: 5/16/2011

Required Date: 5/17/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 10.08.03 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S18GA		Purchased	No			100	sf	209.0000	4.2697	26.96653			



304/316 .050 Sheet



RS15-16

Location

Loc Qty

Loc Code

MAT020

209

112178

4

113062

18

116135

20.5

116604

1.5

116979

69

117653

96

117653

⑥

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

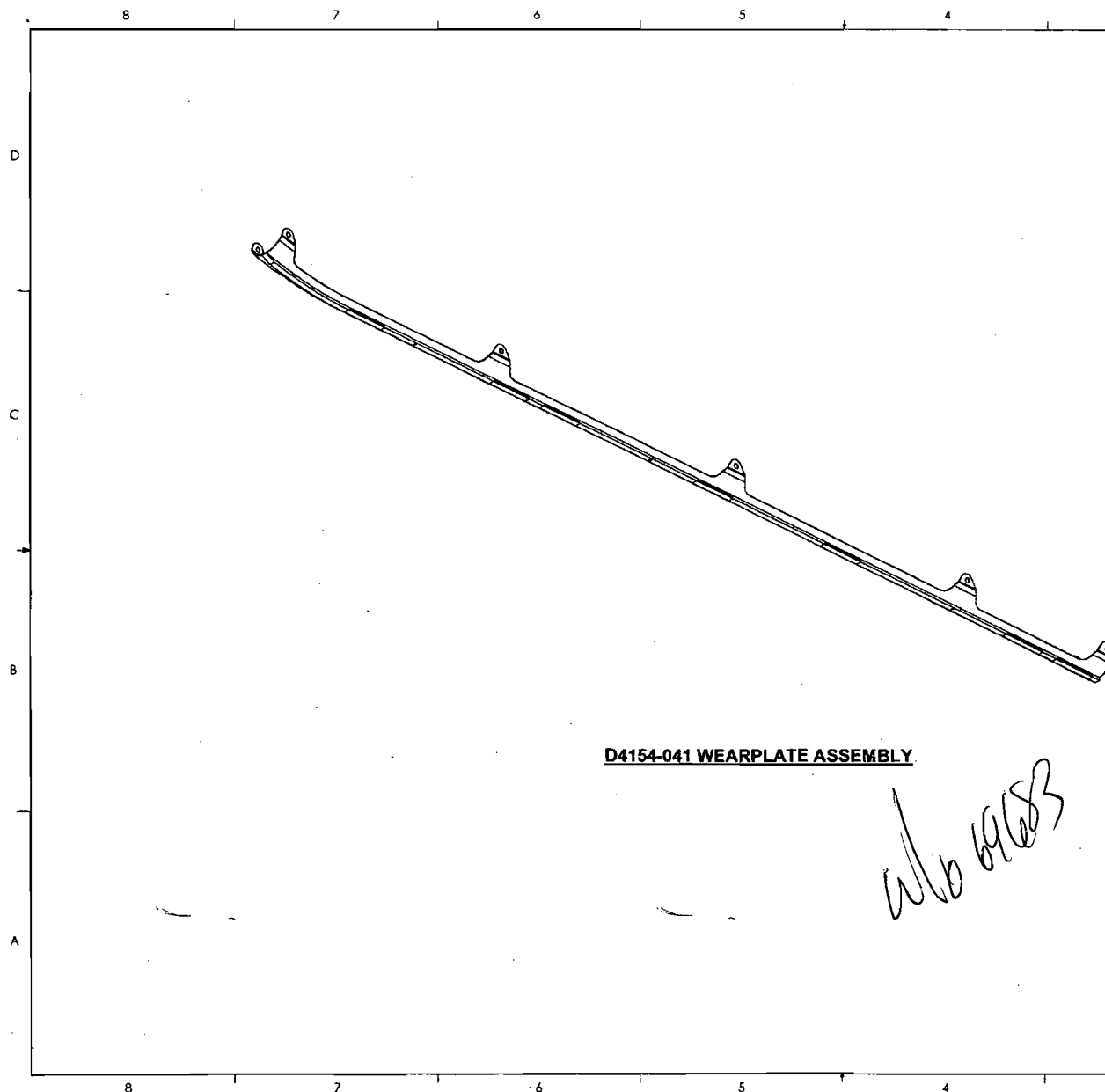
DART AEROSPACE LTD		Work Order: 69683
Description: Plate		Part Number: D4154-1
Inspection Dwg: D4154 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.400	+/-0.010	.402	x		V 1B02	
0.450	+/-0.010	.452	x		V	
0.125	+/-0.010	.126	x		V	
0.88	+/-0.030	.88	x		V	
1.19	+/-0.030	1.191	x		V	
5.273	+/-0.010	5.270	x		V	
2.75	+/-0.030	2.75	x		V	
15.80	+/-0.030	15.80	x		T 1B01	
3.95	+/-0.030	3.947	x		V	
4.00	+/-0.030	3.999	x		V	
6.42	+/-0.030	6.418	x		V	
21.75	+/-0.030	21.75	x		T	
4.35	+/-0.030	4.343	x		V	
1.80	+/-0.030	1.803	x		V	
21.31	+/-0.030	21.31	x		T	
4.26	+/-0.030	4.254	x		V	
8.83	+/-0.030	8.83	x		T	
5.16	+/-0.030	5.16	x		V	
0.55	+/-0.030	.560	x		V	
91.56	+/-0.030	91.56	x		T	
90.41	+/-0.030	90.41	x		T	
74.45	+/-0.030	74.45	x		T	
66.51	+/-0.030	66.51	x		T	
48.59	+/-0.030	48.59	x		T	
40.76	+/-0.030	40.76	x		T	
15.45	+/-0.030	15.46	x		T	
5.223	+/-0.010	5.220	x		V	
Ø0.516	+0.008/-0.001	.518	x		V	
Ø0.188	+0.005/-0.001	.190	x		V	
0.050	+/-0.010	.049	x		V	

Measured by: B	Audited by: S	Preliminary Approval:
Date: 11-5-16	Date: 11-05-16	Date:

Rev	Date	Change	Revised by	Approved
A	10.09.23	New Issue	KJ	
b	11.04.28	Dimensions updated per Dwg Rev B	KJ	



D4154-041 WEARPLATE ASSEMBLY

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4154-041	WEARPLATE ASSEMBLY
1	1	D4154-1	PLATE
2	1	D4155-1	BAR
3	A/R	2059B	HARDCOAT
4	A/R	4714	PLUS ONE ROCKGUARD (SEE NOTE 11, SHT 2)

△/B

RELEASED
R 2011-04-12
JMD

B	ITEM 4 WAS PR1422 (D3-1); REMOVED FINISH TO NOTE 2 (A8-2); REMOVED SECTION A-A (NO LONGER REQUIRED); REVISED D4154-1F	MB	11.04.05
A	NEW ISSUE	SC	10.07.22
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	SC	DRAWING NO.	REV. B
CHECKED	SC	D4154	SHEET 1 OF 3
MFG. APPR.	SC	TITLE	SCALE
APPROVED	SC	WEARPLATE ASSEMBLY	NTS
DE APPR.	SC	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	
DATE	11.04.05		

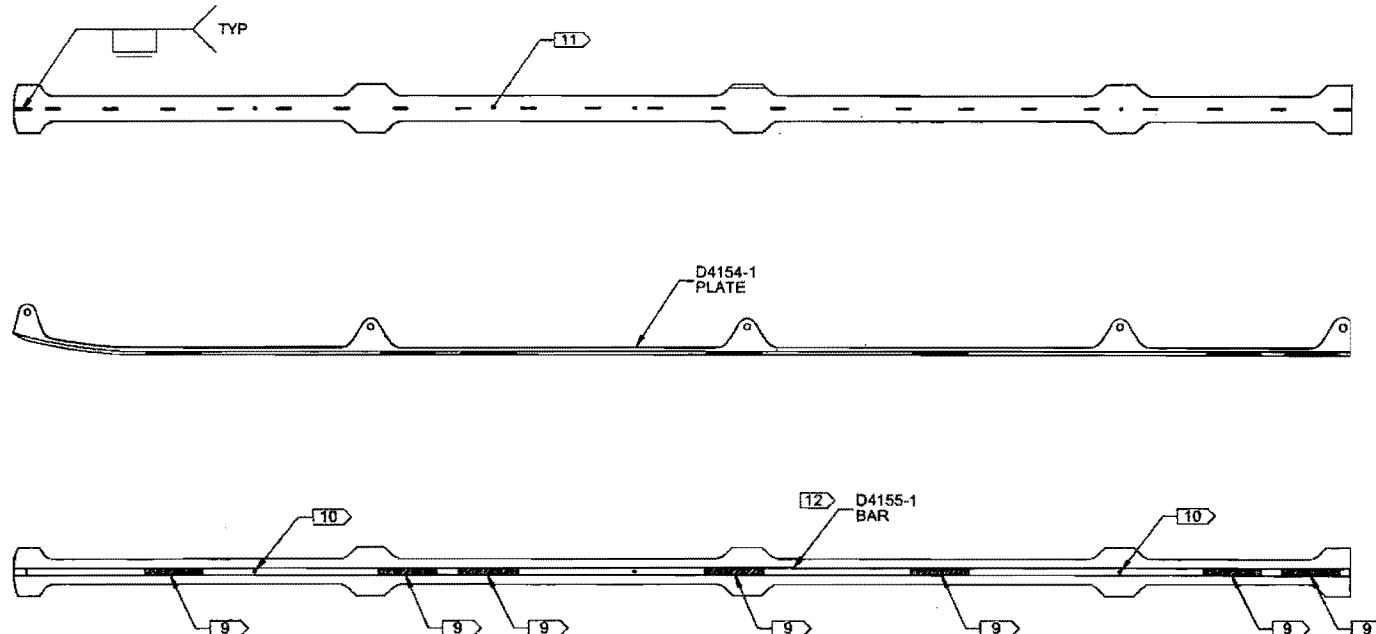
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4154-041 WEARPLATE ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH P/N "D4154-041" PER QSI 044 6.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: 6.88 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK X 0.50 WIDE, FLUSH WITH D4154-1 BAR ON ALL 3 SURFACES AT 7 PLACES
- 10) TRANSFER DRILL $\phi 0.188$ HOLES FROM D4154-1 PLATE TO D4155-1 BAR
- 11) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 12) FORM TO MATCH PROFILE OF D4154-1 AT TIME OF WELDING

RELEASED
2011-04-13

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	5	PORT HADLOCK, WA	
CHECKED	JP	DRAWING NO.	REV. B
MFG. APPR.	MD	D4154	SHEET 2 OF 3
APPROVED	MD	TITLE	SCALE
DE APPR.	MD	WEARPLATE ASSEMBLY	
DATE	11.04.05	NTS	
COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.			
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE LOANED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

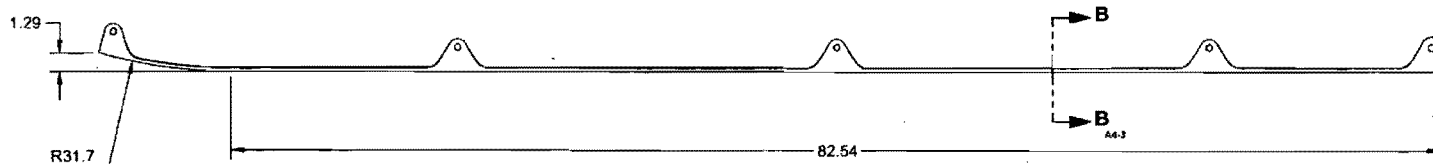
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

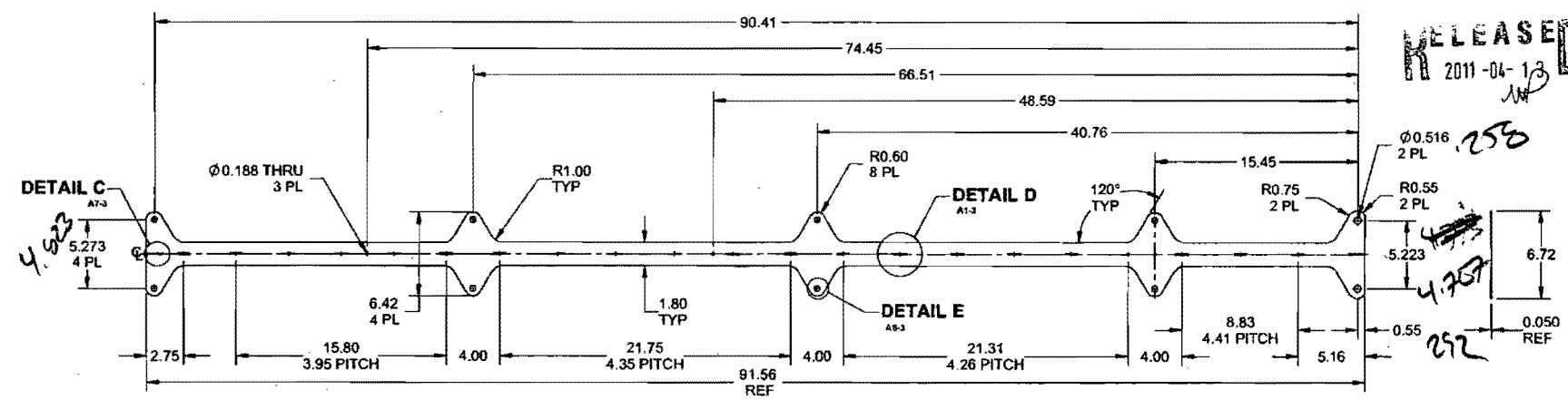
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

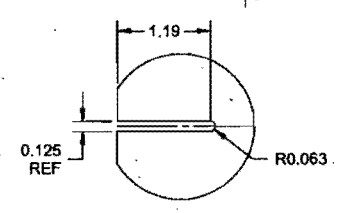
8 7 6 5 4 3 2 1



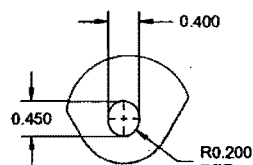
D4154-1 PLATE
(MAKE FROM D4154-1F)



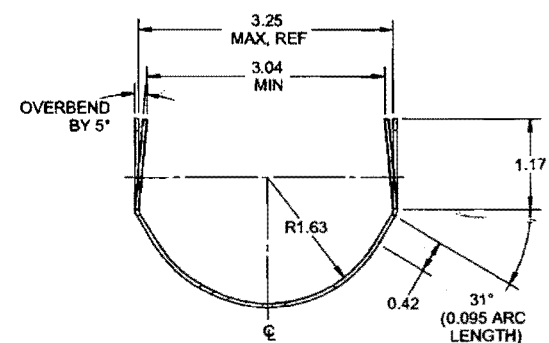
D4154-1F FLAT PATTERN



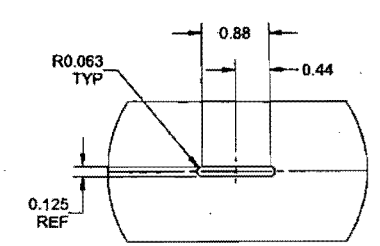
DETAIL C
END SLOT DETAIL, 2 PL



DETAIL E
SLOT DETAIL TYP



SECTION B-B



DETAIL D
SLOT DETAIL TYP

- NOTES:**
- 1) MATERIAL : A31 304/316 STAINLESS STEEL PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240 18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
 - 2) FINISH : NONE
 - 3) TOLERANCES : PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS : INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES : 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION : NONE
 - 7) WEIGHT : 2.95 lbs

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D4154	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSEMBLY	NTS
DATE	11.04.05	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND CONTROLLED UNDER THE EXPORT ADMINISTRATION ACT. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries